

**Claims**

1. A bone screw, especially spongiosis screw, having a screw head (2), a screw shank (3) and a thread (4) formed on the screw shank (3) of a plurality of turns, characterized in that starting from the free end (5) of the screw shank (3) a first screwthread (6) with smooth cutting edges (7) extends toward the screw head (2), that a second screwthread (8) extends from the first screwthread (6) toward the screw head (2) and is formed in its cutting edge (7) with recesses (9), and that the recesses (9) of the second screwthread (8) relative to the angular length in circumferential direction are increased compared to the second screwthread (8) preceding respectively from the free end (5).

2. The bone screw according to claim 1, characterized in that a third screwthread (10) extending from the second screwthread (8) has recesses (9) of constant size.

3. The bone screw according to claim 1 or 2, characterized in that in the second screwthread (8) and in the third screwthread (10) every 360° several recesses (9) are formed.

4. The bone screw according to claim 3, characterized in that every 360° three recesses (9) are formed.

5. The bone screw according to one of the claims 1 to 4, characterized in that each recess (9) extends as a chord toward

the screw shank (3) from the cutting edges (7) of the second screwthread (8) and of the third screwthread (10) and joins in an arc again the cutting edge (7).

5       6. The bone screw according to one of the claims 1 to 5, characterized in that the screw shank (3) has a cylindrical form.

7. The bone screw according to one of the claims 1 to 5, characterized in that the screw shank (3) has a tapered form.

10     8. The bone screw according to one of the claims 1 to 7, characterized in that the first screwthread (6) comprises three turns.

9. The bone screw according to one of the claims 1 to 8, characterized in that the second screwthread (8) comprises three turns.

15     10. The bone screw according to one of the claims 7 to 9, characterized in that the lengths of the cutting edges (7) of the turns of the second screwthread (8) are constant.